

REMARKS

Applicant appreciates the Examiner's attention to the above referenced application. Claims 1-20 were rejected. Claims 1, 3-5, 7-9, 12, 14-16, and 18-20 have been amended. Claims 1-20 are now pending, of which claims 1, 7, 9, 12 and 19 are independent.

35 USC § 101 Rejection of the Claims

Claims 12-20 were rejected under 35 USC § 101 as directed to non-statutory subject matter. Claim 12 has been amended in response to this rejection to clarify that the machine-accessible medium is a storage medium and not a transmission medium for propagating signals, and Applicant respectfully submit that claims 12-20 are now in condition for allowance. Applicant respectfully requests that claims 12-20 be allowed to pass to issuance.

35 USC § 103 Rejection of the Claims

Claims 1-20 were rejected under 35 USC § 103(a) as being unpatentable over Bugnion et al. (US Patent No. 6,075,938) in view of Carrozza et al. (US Patent No. 6,445,685) further in view of Wang (US Patent No. 6,477,612). The independent claims have been amended to clarify the distinctions over the prior art. Representative amended claim 1 is presented below:

1. A method comprising:

unmapping a guest physical address for a first virtual machine ("VM") from a host physical address in at least one page table entry associated with buffers allocated to the first VM in a direct memory access ("DMA") table for the first VM to create unmapped buffers;

placing the incoming packet into at least one of the unmapped buffers; and

allocating the at least one of the unmapped buffers to a second VM to create a mapped buffer.

The prior art references do not teach the claim limitations. The Office Action cites Bugnion column 14, lines 19-30, as teaching "unmapping a guest physical address from a host physical address in at least one page table entry associated with buffers in a DMA table to create

unmapped buffers” (See Office Action dated December 19, 2008, page 2. However, Applicants understand Bugnion to involve physical to machine address translations and not buffers mapped within DMA tables. For example, Bugnion column 14 lines 43-54 indicate that DMA requests are intercepted and addresses within the DMA requests are translated into machine addresses, rather than unmapping an address associated with a buffer in a DMA table.

Furthermore, Bugnion does not appear to teach “allocating the at least one of the unmapped buffers to a second VM to create a mapped buffer”; instead, Bugnion appears to teach sharing buffers between virtual machines, as shown by the shared buffer cache of Bugnion Fig. 4. Although Wang is cited as teaching “allocating unmapped buffers to a virtual machine to create a mapped buffer,” Applicant understands Wang to involve mapping and unmapping physical memory pages within a virtual address space region of a specified process, and not the unmapping and remapping of buffers to different virtual machines.

Because the cited references do not teach the claim limitations either alone or in combination, Applicant respectfully submit that claims 1-20 are now in condition for allowance and respectfully requests that claims 1-20 be allowed to pass to issuance.



CONCLUSION

Applicant respectfully requests entry of the above amendment and consideration of the present application, so amended. If the Examiner has any questions, the Examiner is invited to contact the undersigned at (512) 732-1303.

Respectfully submitted,

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